

## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:      length_db  R-squared:      0.004
Model:              OLS  Adj. R-squared:    0.002
Method:             Least Squares  F-statistic:    1.637
Date:               Tue, 29 Aug 2023  Prob (F-statistic):    0.202
Time:               19:44:02  Log-Likelihood:    -1147.1
No. Observations:   384  AIC:      2298.
Df Residuals:       382  BIC:      2306.
Df Model:            1
Covariance Type:    nonrobust
=====
```

```
=====
              coef  std err      t    P>|t|    [0.025    0.975]
-----
const          5.7176    0.344   16.608   0.000    5.041    6.395
# of past defaults -0.2790    0.218   -1.279   0.202   -0.708    0.150
=====
```

```
=====
Omnibus:          158.633  Durbin-Watson:      2.092
Prob(Omnibus):    0.000  Jarque-Bera (JB):    501.537
Skew:             1.949  Prob(JB):      1.24e-109
Kurtosis:         7.020  Cond. No.      2.74
=====
```

### Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

## White Test Results:

LM Statistic: 1.4476994059753423  
LM P-Value: 0.4848820066079965  
F Statistic: 0.7209125037545431  
F P-Value: 0.48697044068505846

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.000

Model:

OLS

Adj. R-squared:

-0.004

Method:

Least Squares

F-statistic:

0.07340

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.787

Time:

19:44:02

Log-Likelihood:

-651.10

No. Observations:

223

AIC:

1306.

Df Residuals:

221

BIC:

1313.

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

-----

const

5.2501

0.564

9.313

0.000

4.139

6.361

Adjusted savings: gross savings (% of GNI)

-0.0070

0.026

-0.271

0.787

-0.058

0.044

Omnibus:

118.401

Durbin-Watson:

1.989

Prob(Omnibus):

0.000

Jarque-Bera (JB):

498.470

Skew:

2.225

Prob(JB):

5.74e-109

Kurtosis:

8.818

Cond. No.

40.6

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.0036425586558617162  
LM P-Value: 0.998180378194841  
F Statistic: 0.0017968071619777896  
F P-Value: 0.9982048207781682

Regression Summary:

| OLS Regression Results                            |                  |                     |           |       |        |        |  |
|---------------------------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                                             |                  |                     |           |       |        |        |  |
| Dep. Variable:                                    | length_db        | R-squared:          | 0.000     |       |        |        |  |
| Model:                                            | OLS              | Adj. R-squared:     | -0.004    |       |        |        |  |
| Method:                                           | Least Squares    | F-statistic:        | 0.08401   |       |        |        |  |
| Date:                                             | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.772     |       |        |        |  |
| Time:                                             | 19:44:03         | Log-Likelihood:     | -651.10   |       |        |        |  |
| No. Observations:                                 | 223              | AIC:                | 1306.     |       |        |        |  |
| Df Residuals:                                     | 221              | BIC:                | 1313.     |       |        |        |  |
| Df Model:                                         | 1                |                     |           |       |        |        |  |
| Covariance Type:                                  | nonrobust        |                     |           |       |        |        |  |
| =====                                             |                  |                     |           |       |        |        |  |
|                                                   | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                                             |                  |                     |           |       |        |        |  |
| const                                             | 5.0615           | 0.365               | 13.864    | 0.000 | 4.342  | 5.781  |  |
| Adjusted savings: net national savings (% of GNI) | 0.0074           | 0.026               | 0.290     | 0.772 | -0.043 | 0.058  |  |
| =====                                             |                  |                     |           |       |        |        |  |
| Omnibus:                                          | 118.365          | Durbin-Watson:      | 1.998     |       |        |        |  |
| Prob(Omnibus):                                    | 0.000            | Jarque-Bera (JB):   | 499.998   |       |        |        |  |
| Skew:                                             | 2.222            | Prob(JB):           | 2.67e-109 |       |        |        |  |
| Kurtosis:                                         | 8.836            | Cond. No.           | 17.3      |       |        |        |  |
| =====                                             |                  |                     |           |       |        |        |  |

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.05092995394006594  
LM P-Value: 0.9748565207970038  
F Statistic: 0.02512813770539684  
F P-Value: 0.9751877445226907

## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:    length_db  R-squared:        0.113
Model:            OLS  Adj. R-squared:    0.086
Method:          Least Squares  F-statistic:    4.093
Date:            Tue, 29 Aug 2023  Prob (F-statistic):    0.0515
Time:            19:44:03  Log-Likelihood:    -97.481
No. Observations:    34  AIC:            199.0
Df Residuals:        32  BIC:            202.0
Df Model:            1
Covariance Type:    nonrobust
=====
```

```
=====
              coef  std err      t  P>|t|   [0.025   0.975]
-----
const          3.9677    0.788    5.037   0.000    2.363    5.572
Banking Crisis Dummy  5.3656    2.652    2.023   0.051   -0.036   10.768
=====
```

```
=====
Omnibus:          44.347  Durbin-Watson:        2.308
Prob(Omnibus):      0.000  Jarque-Bera (JB):    185.612
Skew:              2.858  Prob(JB):          4.95e-41
Kurtosis:          12.917  Cond. No.          3.56
=====
```

### Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

## White Test Results:

LM Statistic: 0.9050454109070909  
LM P-Value: 0.34143244377595755  
F Statistic: 0.8751017642602147  
F P-Value: 0.3565530913319753

Regression Summary:

| OLS Regression Results        |                  |                     |           |       |        |        |  |
|-------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                         |                  |                     |           |       |        |        |  |
| Dep. Variable:                | length_db        | R-squared:          | 0.001     |       |        |        |  |
| Model:                        | OLS              | Adj. R-squared:     | -0.003    |       |        |        |  |
| Method:                       | Least Squares    | F-statistic:        | 0.1596    |       |        |        |  |
| Date:                         | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.690     |       |        |        |  |
| Time:                         | 19:44:03         | Log-Likelihood:     | -850.47   |       |        |        |  |
| No. Observations:             | 287              | AIC:                | 1705.     |       |        |        |  |
| Df Residuals:                 | 285              | BIC:                | 1712.     |       |        |        |  |
| Df Model:                     | 1                |                     |           |       |        |        |  |
| Covariance Type:              | nonrobust        |                     |           |       |        |        |  |
| =====                         |                  |                     |           |       |        |        |  |
|                               | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                         |                  |                     |           |       |        |        |  |
| const                         | 5.1155           | 0.358               | 14.304    | 0.000 | 4.412  | 5.819  |  |
| Broad money growth (annual %) | 0.0049           | 0.012               | 0.400     | 0.690 | -0.019 | 0.029  |  |
| =====                         |                  |                     |           |       |        |        |  |
| Omnibus:                      | 138.373          | Durbin-Watson:      | 2.086     |       |        |        |  |
| Prob(Omnibus):                | 0.000            | Jarque-Bera (JB):   | 513.420   |       |        |        |  |
| Skew:                         | 2.145            | Prob(JB):           | 3.25e-112 |       |        |        |  |
| Kurtosis:                     | 7.953            | Cond. No.           | 37.7      |       |        |        |  |
| =====                         |                  |                     |           |       |        |        |  |

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.12719476332016244  
LM P-Value: 0.938382733582702  
F Statistic: 0.06296050396468654  
F P-Value: 0.9389936613201865

Regression Summary:

| OLS Regression Results              |                  |                     |           |       |        |        |       |
|-------------------------------------|------------------|---------------------|-----------|-------|--------|--------|-------|
| =====                               |                  |                     |           |       |        |        |       |
| Dep. Variable:                      | length_db        | R-squared:          | 0.016     |       |        |        |       |
| Model:                              | OLS              | Adj. R-squared:     | 0.012     |       |        |        |       |
| Method:                             | Least Squares    | F-statistic:        | 4.286     |       |        |        |       |
| Date:                               | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.0394    |       |        |        |       |
| Time:                               | 19:44:04         | Log-Likelihood:     | -755.56   |       |        |        |       |
| No. Observations:                   | 263              | AIC:                | 1515.     |       |        |        |       |
| Df Residuals:                       | 261              | BIC:                | 1522.     |       |        |        |       |
| Df Model:                           | 1                |                     |           |       |        |        |       |
| Covariance Type:                    | nonrobust        |                     |           |       |        |        |       |
| =====                               |                  |                     |           |       |        |        |       |
|                                     | coef             | std err             | t         | P> t  | [0.025 | 0.975] |       |
| -----                               |                  |                     |           |       |        |        |       |
| const                               | 4.5506           | 0.303               | 15.013    | 0.000 | 3.954  | 5.147  |       |
| Broad money to total reserves ratio |                  | 0.0472              | 0.023     | 2.070 | 0.039  | 0.002  | 0.092 |
| =====                               |                  |                     |           |       |        |        |       |
| Omnibus:                            | 143.222          | Durbin-Watson:      | 2.076     |       |        |        |       |
| Prob(Omnibus):                      | 0.000            | Jarque-Bera (JB):   | 669.551   |       |        |        |       |
| Skew:                               | 2.314            | Prob(JB):           | 4.06e-146 |       |        |        |       |
| Kurtosis:                           | 9.299            | Cond. No.           | 15.2      |       |        |        |       |
| =====                               |                  |                     |           |       |        |        |       |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.9170735359604322  
LM P-Value: 0.6322080360846134  
F Statistic: 0.4548925078155121  
F P-Value: 0.6350201897359711

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.144

Model:

OLS

Adj. R-squared:

0.129

Method:

Least Squares

F-statistic:

9.890

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.00260

Time:

19:44:04

Log-Likelihood:

-133.64

No. Observations:

61

AIC:

271.3

Df Residuals:

59

BIC:

275.5

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

const

2.3580

0.504

4.679

0.000

1.350

3.366

Central government debt, total (% of GDP)

0.0265

0.008

3.145

0.003

0.010

0.043

Omnibus:

27.939

Durbin-Watson:

2.058

Prob(Omnibus):

0.000

Jarque-Bera (JB):

46.954

Skew:

1.636

Prob(JB):

6.37e-11

Kurtosis:

5.788

Cond. No.

107.

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.3057137507877306  
LM P-Value: 0.5205564853997722  
F Statistic: 0.6343270210948173  
F P-Value: 0.5339307521091043

Regression Summary:

| OLS Regression Results                     |                  |                     |           |       |        |        |       |
|--------------------------------------------|------------------|---------------------|-----------|-------|--------|--------|-------|
| =====                                      |                  |                     |           |       |        |        |       |
| Dep. Variable:                             | length_db        | R-squared:          | 0.001     |       |        |        |       |
| Model:                                     | OLS              | Adj. R-squared:     | -0.002    |       |        |        |       |
| Method:                                    | Least Squares    | F-statistic:        | 0.3261    |       |        |        |       |
| Date:                                      | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.568     |       |        |        |       |
| Time:                                      | 19:44:05         | Log-Likelihood:     | -839.48   |       |        |        |       |
| No. Observations:                          | 286              | AIC:                | 1683.     |       |        |        |       |
| Df Residuals:                              | 284              | BIC:                | 1690.     |       |        |        |       |
| Df Model:                                  | 1                |                     |           |       |        |        |       |
| Covariance Type:                           | nonrobust        |                     |           |       |        |        |       |
| =====                                      |                  |                     |           |       |        |        |       |
|                                            | coef             | std err             | t         | P> t  | [0.025 | 0.975] |       |
| -----                                      |                  |                     |           |       |        |        |       |
| const                                      | 5.0189           | 0.298               | 16.825    | 0.000 | 4.432  | 5.606  |       |
| Claims on central government, etc. (% GDP) |                  | 0.0078              | 0.014     | 0.571 | 0.568  | -0.019 | 0.035 |
| =====                                      |                  |                     |           |       |        |        |       |
| Omnibus:                                   | 148.419          | Durbin-Watson:      | 2.073     |       |        |        |       |
| Prob(Omnibus):                             | 0.000            | Jarque-Bera (JB):   | 634.180   |       |        |        |       |
| Skew:                                      | 2.261            | Prob(JB):           | 1.95e-138 |       |        |        |       |
| Kurtosis:                                  | 8.724            | Cond. No.           | 24.1      |       |        |        |       |
| =====                                      |                  |                     |           |       |        |        |       |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.09245067787797656  
LM P-Value: 0.9548267782938313  
F Statistic: 0.045755248333771856  
F P-Value: 0.9552828042347324



Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.012

Model:

OLS

Adj. R-squared:

0.009

Method:

Least Squares

F-statistic:

0.4102

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.522

Time:

19:44:05

Log-Likelihood:

-838.56

No. Observations:

285

AIC:

1681.

Df Residuals:

283

BIC:

1688.

Df Model:

1

Covariance Type:

HC3

coef

std err

z

P>|z|

[0.025

0.975]

-----

const

4.8601

0.495

9.818

0.000

3.890

5.830

Claims on private sector (annual growth as % of broad money)

0.0236

0.037

0.640

0.522

-0.049

0.096

Omnibus:

136.082

Durbin-Watson:

2.111

Prob(Omnibus):

0.000

Jarque-Bera (JB):

509.116

Skew:

2.111

Prob(JB):

2.80e-111

Kurtosis:

8.005

Cond. No.

29.4

Notes:  
[1] Standard Errors are heteroscedasticity robust (HC3)

White Test Results:

LM Statistic: 5.7576411286377365  
LM P-Value: 0.05620100923537742  
F Statistic: 2.9072501837441616  
F P-Value: 0.05626492676939777

Regression Summary:

| OLS Regression Results            |                  |                     |           |       |        |        |  |
|-----------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                             |                  |                     |           |       |        |        |  |
| Dep. Variable:                    | length_db        | R-squared:          | 0.082     |       |        |        |  |
| Model:                            | OLS              | Adj. R-squared:     | 0.079     |       |        |        |  |
| Method:                           | Least Squares    | F-statistic:        | 24.48     |       |        |        |  |
| Date:                             | Tue, 29 Aug 2023 | Prob (F-statistic): | 1.31e-06  |       |        |        |  |
| Time:                             | 19:44:06         | Log-Likelihood:     | -799.90   |       |        |        |  |
| No. Observations:                 | 279              | AIC:                | 1604.     |       |        |        |  |
| Df Residuals:                     | 277              | BIC:                | 1611.     |       |        |        |  |
| Df Model:                         | 1                |                     |           |       |        |        |  |
| Covariance Type:                  | HC3              |                     |           |       |        |        |  |
| =====                             |                  |                     |           |       |        |        |  |
|                                   | coef             | std err             | z         | P> z  | [0.025 | 0.975] |  |
| -----                             |                  |                     |           |       |        |        |  |
| const                             | 6.9506           | 0.583               | 11.913    | 0.000 | 5.807  | 8.094  |  |
| Consumer price index (2010 = 100) | -0.0310          | 0.006               | -4.947    | 0.000 | -0.043 | -0.019 |  |
| =====                             |                  |                     |           |       |        |        |  |
| Omnibus:                          | 132.323          | Durbin-Watson:      | 1.973     |       |        |        |  |
| Prob(Omnibus):                    | 0.000            | Jarque-Bera (JB):   | 530.367   |       |        |        |  |
| Skew:                             | 2.045            | Prob(JB):           | 6.80e-116 |       |        |        |  |
| Kurtosis:                         | 8.375            | Cond. No.           | 141.      |       |        |        |  |
| =====                             |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors are heteroscedasticity robust (HC3)

White Test Results:

LM Statistic: 12.412679279414796  
LM P-Value: 0.002016605473660293  
F Statistic: 6.425473409347224  
F P-Value: 0.0018727057915991737

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.008

Model:

OLS

Adj. R-squared:

0.004

Method:

Least Squares

F-statistic:

2.196

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.140

Time:

19:44:06

Log-Likelihood:

-786.94

No. Observations:

272

AIC:

1578.

Df Residuals:

270

BIC:

1585.

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

-----

const

4.6623

0.345

13.500

0.000

3.982

5.342

Current Account balance (% of GDP)

-0.0481

0.032

-1.482

0.140

-0.112

0.016

Omnibus:

143.368

Durbin-Watson:

2.008

Prob(Omnibus):

0.000

Jarque-Bera (JB):

645.853

Skew:

2.254

Prob(JB):

5.68e-141

Kurtosis:

9.055

Cond. No.

13.9

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.636073750448066  
LM P-Value: 0.4412971260354309  
F Statistic: 0.813910059998724  
F P-Value: 0.44421024131018993

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.031

Model:

OLS

Adj. R-squared:

0.014

Method:

Least Squares

F-statistic:

1.767

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.189

Time:

19:44:07

Log-Likelihood:

-135.67

No. Observations:

57

AIC:

275.3

Df Residuals:

55

BIC:

279.4

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

-----

const

3.4187

0.466

7.329

0.000

2.484

4.353

Cyclically adjusted balance (% of potential GDP)

-0.1093

0.082

-1.329

0.189

-0.274

0.055

Omnibus:

33.687

Durbin-Watson:

1.288

Prob(Omnibus):

0.000

Jarque-Bera (JB):

68.071

Skew:

1.941

Prob(JB):

1.65e-15

Kurtosis:

6.687

Cond. No.

7.61

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.7148306689449577  
LM P-Value: 0.42425722944931177  
F Statistic: 0.837483698101035  
F P-Value: 0.4383411957261425

Regression Summary:

OLS Regression Results

=====

|                   |                  |                     |         |
|-------------------|------------------|---------------------|---------|
| Dep. Variable:    | length_db        | R-squared:          | 0.055   |
| Model:            | OLS              | Adj. R-squared:     | 0.037   |
| Method:           | Least Squares    | F-statistic:        | 3.117   |
| Date:             | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.0831  |
| Time:             | 19:44:07         | Log-Likelihood:     | -133.10 |
| No. Observations: | 56               | AIC:                | 270.2   |
| Df Residuals:     | 54               | BIC:                | 274.2   |
| Df Model:         | 1                |                     |         |
| Covariance Type:  | nonrobust        |                     |         |

=====

|                                                          | coef    | std err           | t        | P> t   | [0.025 | 0.975] |       |  |
|----------------------------------------------------------|---------|-------------------|----------|--------|--------|--------|-------|--|
| -----                                                    |         |                   |          |        |        |        |       |  |
| const                                                    | 3.5791  | 0.380             | 9.412    | 0.000  | 2.817  | 4.341  |       |  |
| Cyclically adjusted primary balance (% of potential GDP) | -0.1533 |                   | 0.087    | -1.765 | 0.083  | -0.327 | 0.021 |  |
| =====                                                    |         |                   |          |        |        |        |       |  |
| Omnibus:                                                 | 34.844  | Durbin-Watson:    | 1.218    |        |        |        |       |  |
| Prob(Omnibus):                                           | 0.000   | Jarque-Bera (JB): | 74.611   |        |        |        |       |  |
| Skew:                                                    | 1.990   | Prob(JB):         | 6.29e-17 |        |        |        |       |  |
| Kurtosis:                                                | 7.018   | Cond. No.         | 4.73     |        |        |        |       |  |
| =====                                                    |         |                   |          |        |        |        |       |  |

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 2.056789696353662  
LM P-Value: 0.3575804711053924  
F Statistic: 1.010413111243544  
F P-Value: 0.3709729044587442

Regression Summary:

OLS Regression Results

=====

Dep. Variable:

length\_db

R-squared:

0.000

Model:

OLS

Adj. R-squared:

-0.004

Method:

Least Squares

F-statistic:

0.006696

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.935

Time:

19:44:08

Log-Likelihood:

-762.50

No. Observations:

256

AIC:

1529.

Df Residuals:

254

BIC:

1536.

Df Model:

1

Covariance Type:

nonrobust

=====

coef

std err

t

P>|t|

[0.025

0.975]

-----

const

5.5331

2.476

2.235

0.026

0.657

10.409

ln\_Debt service on external debt, total (TDS, current US\$)

-0.0106

0.130

-0.082

0.935

-0.266

0.245

=====

Omnibus:

119.405

Durbin-Watson:

2.192

Prob(Omnibus):

0.000

Jarque-Bera (JB):

409.912

Skew:

2.064

Prob(JB):

9.74e-90

Kurtosis:

7.626

Cond. No.

159.

=====

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.07349847081962935  
LM P-Value: 0.9639178215021037  
F Statistic: 0.03632901048984544  
F P-Value: 0.9643279984387996

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.009

Model:

OLS

Adj. R-squared:

0.005

Method:

Least Squares

F-statistic:

2.274

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.133

Time:

19:44:08

Log-Likelihood:

-717.26

No. Observations:

244

AIC:

1439.

Df Residuals:

242

BIC:

1446.

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

const

5.5294

0.401

13.797

0.000

4.740

6.319

Domestic credit to private sector (% of GDP)

-0.0134

0.009

-1.508

0.133

-0.031

0.004

Omnibus:

129.350

Durbin-Watson:

2.059

Prob(Omnibus):

0.000

Jarque-Bera (JB):

547.952

Skew:

2.260

Prob(JB):

1.03e-119

Kurtosis:

8.785

Cond. No.

61.5

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.8280782966431661  
LM P-Value: 0.660975074694621  
F Statistic: 0.4103411037201408  
F P-Value: 0.6638865421541171

Regression Summary:

| OLS Regression Results |                  |                     |           |       |        |        |
|------------------------|------------------|---------------------|-----------|-------|--------|--------|
| =====                  |                  |                     |           |       |        |        |
| Dep. Variable:         | length_db        | R-squared:          | 0.000     |       |        |        |
| Model:                 | OLS              | Adj. R-squared:     | -0.002    |       |        |        |
| Method:                | Least Squares    | F-statistic:        | 0.09540   |       |        |        |
| Date:                  | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.758     |       |        |        |
| Time:                  | 19:44:08         | Log-Likelihood:     | -1147.9   |       |        |        |
| No. Observations:      | 384              | AIC:                | 2300.     |       |        |        |
| Df Residuals:          | 382              | BIC:                | 2308.     |       |        |        |
| Df Model:              | 1                |                     |           |       |        |        |
| Covariance Type:       | nonrobust        |                     |           |       |        |        |
| =====                  |                  |                     |           |       |        |        |
|                        | coef             | std err             | t         | P> t  | [0.025 | 0.975] |
| -----                  |                  |                     |           |       |        |        |
| const                  | 5.5069           | 0.402               | 13.709    | 0.000 | 4.717  | 6.297  |
| Dummy for past default | -0.1569          | 0.508               | -0.309    | 0.758 | -1.156 | 0.842  |
| =====                  |                  |                     |           |       |        |        |
| Omnibus:               | 159.006          | Durbin-Watson:      | 2.080     |       |        |        |
| Prob(Omnibus):         | 0.000            | Jarque-Bera (JB):   | 502.155   |       |        |        |
| Skew:                  | 1.955            | Prob(JB):           | 9.09e-110 |       |        |        |
| Kurtosis:              | 7.012            | Cond. No.           | 3.03      |       |        |        |
| =====                  |                  |                     |           |       |        |        |

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.005187544127892352  
LM P-Value: 0.9425823245170013  
F Statistic: 0.005160595384569216  
F P-Value: 0.9427689967644894



Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.047

Model:

OLS

Adj. R-squared:

0.043

Method:

Least Squares

F-statistic:

18.83

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

2.04e-05

Time:

19:44:09

Log-Likelihood:

-780.84

No. Observations:

267

AIC:

1566.

Df Residuals:

265

BIC:

1573.

Df Model:

1

Covariance Type:

HC3

coef

std err

z

P>|z|

[0.025

0.975]

const

6.8657

0.551

12.457

0.000

5.785

7.946

Exports of goods and services (% of GDP)

-0.0524

0.012

-4.339

0.000

-0.076

-0.029

Omnibus:

124.327

Durbin-Watson:

2.135

Prob(Omnibus):

0.000

Jarque-Bera (JB):

448.111

Skew:

2.045

Prob(JB):

4.94e-98

Kurtosis:

7.854

Cond. No.

70.5

Notes:  
[1] Standard Errors are heteroscedasticity robust (HC3)

White Test Results:

LM Statistic: 4.773738516982163  
LM P-Value: 0.09191700225737807  
F Statistic: 2.40301440701603  
F P-Value: 0.09242079500649854

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.008

Model:

OLS

Adj. R-squared:

0.003

Method:

Least Squares

F-statistic:

1.692

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.195

Time:

19:44:09

Log-Likelihood:

-633.54

No. Observations:

218

AIC:

1271.

Df Residuals:

216

BIC:

1278.

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

-----

const

5.2939

0.315

16.818

0.000

4.673

5.914

Exports of goods and services (annual % growth)

-0.0176

0.014

-1.301

0.195

-0.044

0.009

Omnibus:

110.988

Durbin-Watson:

2.147

Prob(Omnibus):

0.000

Jarque-Bera (JB):

431.410

Skew:

2.146

Prob(JB):

2.09e-94

Kurtosis:

8.392

Cond. No.

24.4

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.2916171452617149  
LM P-Value: 0.8643231424545846  
F Statistic: 0.14399465332738418  
F P-Value: 0.8659758133120095

Regression Summary:

| OLS Regression Results |                  |                     |         |
|------------------------|------------------|---------------------|---------|
| =====                  |                  |                     |         |
| Dep. Variable:         | length_db        | R-squared:          | 0.001   |
| Model:                 | OLS              | Adj. R-squared:     | -0.003  |
| Method:                | Least Squares    | F-statistic:        | 0.3342  |
| Date:                  | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.564   |
| Time:                  | 19:44:10         | Log-Likelihood:     | -787.11 |
| No. Observations:      | 267              | AIC:                | 1578.   |
| Df Residuals:          | 265              | BIC:                | 1585.   |
| Df Model:              | 1                |                     |         |
| Covariance Type:       | nonrobust        |                     |         |

|                                                   | coef    | std err           | t         | P> t  | [0.025 | 0.975] |  |  |
|---------------------------------------------------|---------|-------------------|-----------|-------|--------|--------|--|--|
| -----                                             |         |                   |           |       |        |        |  |  |
| const                                             | 5.1159  | 0.340             | 15.036    | 0.000 | 4.446  | 5.786  |  |  |
| External balance on goods and services (% of GDP) | -0.0103 | 0.018             | -0.578    | 0.564 | -0.046 | 0.025  |  |  |
| =====                                             |         |                   |           |       |        |        |  |  |
| Omnibus:                                          | 128.812 | Durbin-Watson:    | 2.098     |       |        |        |  |  |
| Prob(Omnibus):                                    | 0.000   | Jarque-Bera (JB): | 478.145   |       |        |        |  |  |
| Skew:                                             | 2.118   | Prob(JB):         | 1.49e-104 |       |        |        |  |  |
| Kurtosis:                                         | 8.003   | Cond. No.         | 22.9      |       |        |        |  |  |
| =====                                             |         |                   |           |       |        |        |  |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.675861781630986  
LM P-Value: 0.4326047043981681  
F Statistic: 0.8337490763589193  
F P-Value: 0.43555812905412317

Regression Summary:

| OLS Regression Results          |                  |                     |          |       |        |        |  |
|---------------------------------|------------------|---------------------|----------|-------|--------|--------|--|
| =====                           |                  |                     |          |       |        |        |  |
| Dep. Variable:                  | length_db        | R-squared:          | 0.001    |       |        |        |  |
| Model:                          | OLS              | Adj. R-squared:     | -0.003   |       |        |        |  |
| Method:                         | Least Squares    | F-statistic:        | 0.2363   |       |        |        |  |
| Date:                           | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.627    |       |        |        |  |
| Time:                           | 19:44:10         | Log-Likelihood:     | -725.19  |       |        |        |  |
| No. Observations:               | 245              | AIC:                | 1454.    |       |        |        |  |
| Df Residuals:                   | 243              | BIC:                | 1461.    |       |        |        |  |
| Df Model:                       | 1                |                     |          |       |        |        |  |
| Covariance Type:                | nonrobust        |                     |          |       |        |        |  |
| =====                           |                  |                     |          |       |        |        |  |
|                                 | coef             | std err             | t        | P> t  | [0.025 | 0.975] |  |
| -----                           |                  |                     |          |       |        |        |  |
| const                           | 5.1165           | 0.440               | 11.615   | 0.000 | 4.249  | 5.984  |  |
| External debt stocks (% of GNI) | 0.0025           | 0.005               | 0.486    | 0.627 | -0.008 | 0.013  |  |
| =====                           |                  |                     |          |       |        |        |  |
| Omnibus:                        | 118.576          | Durbin-Watson:      | 2.144    |       |        |        |  |
| Prob(Omnibus):                  | 0.000            | Jarque-Bera (JB):   | 432.135  |       |        |        |  |
| Skew:                           | 2.103            | Prob(JB):           | 1.46e-94 |       |        |        |  |
| Kurtosis:                       | 7.964            | Cond. No.           | 127.     |       |        |        |  |
| =====                           |                  |                     |          |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.422402155781246  
LM P-Value: 0.4910540489634432  
F Statistic: 0.7065947869294785  
F P-Value: 0.4943360850190657

## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:      length_db  R-squared:      0.008
Model:              OLS  Adj. R-squared:    0.004
Method:             Least Squares  F-statistic:    2.019
Date:               Tue, 29 Aug 2023  Prob (F-statistic):    0.157
Time:               19:44:10  Log-Likelihood:    -624.74
No. Observations:   246  AIC:      1253.
Df Residuals:       244  BIC:      1260.
Df Model:           1
Covariance Type:    HC3
=====
```

```
=====
              coef  std err      z  P>|z|  [0.025  0.975]
-----
const          5.7490    1.195    4.812  0.000    3.407    8.091
Food Price Index -0.0175    0.012   -1.421  0.155   -0.042    0.007
=====
```

```
=====
Omnibus:          77.086  Durbin-Watson:      1.764
Prob(Omnibus):    0.000  Jarque-Bera (JB):    153.986
Skew:             1.601  Prob(JB):      3.65e-34
Kurtosis:         5.184  Cond. No.      530.
=====
```

### Notes:

[1] Standard Errors are heteroscedasticity robust (HC3)

## White Test Results:

LM Statistic: 9.19414025204944  
LM P-Value: 0.01008132954204201  
F Statistic: 4.717315871376677  
F P-Value: 0.00977386930345815

Regression Summary:

| OLS Regression Results      |                  |                     |          |       |        |        |
|-----------------------------|------------------|---------------------|----------|-------|--------|--------|
| =====                       |                  |                     |          |       |        |        |
| Dep. Variable:              | length_db        | R-squared:          | 0.000    |       |        |        |
| Model:                      | OLS              | Adj. R-squared:     | -0.004   |       |        |        |
| Method:                     | Least Squares    | F-statistic:        | 0.02882  |       |        |        |
| Date:                       | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.865    |       |        |        |
| Time:                       | 19:44:11         | Log-Likelihood:     | -590.88  |       |        |        |
| No. Observations:           | 238              | AIC:                | 1186.    |       |        |        |
| Df Residuals:               | 236              | BIC:                | 1193.    |       |        |        |
| Df Model:                   | 1                |                     |          |       |        |        |
| Covariance Type:            | nonrobust        |                     |          |       |        |        |
| =====                       |                  |                     |          |       |        |        |
|                             | coef             | std err             | t        | P> t  | [0.025 | 0.975] |
| -----                       |                  |                     |          |       |        |        |
| const                       | 4.0246           | 0.194               | 20.739   | 0.000 | 3.642  | 4.407  |
| Food Price Index (% change) | -0.3179          | 1.873               | -0.170   | 0.865 | -4.008 | 3.372  |
| =====                       |                  |                     |          |       |        |        |
| Omnibus:                    | 90.701           | Durbin-Watson:      | 1.745    |       |        |        |
| Prob(Omnibus):              | 0.000            | Jarque-Bera (JB):   | 226.149  |       |        |        |
| Skew:                       | 1.790            | Prob(JB):           | 7.80e-50 |       |        |        |
| Kurtosis:                   | 6.161            | Cond. No.           | 9.94     |       |        |        |
| =====                       |                  |                     |          |       |        |        |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.43851792913685395  
LM P-Value: 0.8031137132256925  
F Statistic: 0.21689482749652791  
F P-Value: 0.8051755997891124

Regression Summary:

| OLS Regression Results |                  |                     |         |
|------------------------|------------------|---------------------|---------|
| =====                  |                  |                     |         |
| Dep. Variable:         | length_db        | R-squared:          | 0.006   |
| Model:                 | OLS              | Adj. R-squared:     | 0.003   |
| Method:                | Least Squares    | F-statistic:        | 1.796   |
| Date:                  | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.181   |
| Time:                  | 19:44:11         | Log-Likelihood:     | -886.17 |
| No. Observations:      | 303              | AIC:                | 1776.   |
| Df Residuals:          | 301              | BIC:                | 1784.   |
| Df Model:              | 1                |                     |         |
| Covariance Type:       | nonrobust        |                     |         |

|                                                   | coef    | std err           | t         | P> t   | [0.025 | 0.975] |       |
|---------------------------------------------------|---------|-------------------|-----------|--------|--------|--------|-------|
| -----                                             |         |                   |           |        |        |        |       |
| const                                             | 5.1946  | 0.283             | 18.330    | 0.000  | 4.637  | 5.752  |       |
| Foreign direct investment, net inflows (% of GDP) | -0.0334 |                   | 0.025     | -1.340 | 0.181  | -0.082 | 0.016 |
| =====                                             |         |                   |           |        |        |        |       |
| Omnibus:                                          | 152.761 | Durbin-Watson:    | 2.128     |        |        |        |       |
| Prob(Omnibus):                                    | 0.000   | Jarque-Bera (JB): | 634.797   |        |        |        |       |
| Skew:                                             | 2.218   | Prob(JB):         | 1.43e-138 |        |        |        |       |
| Kurtosis:                                         | 8.532   | Cond. No.         | 12.4      |        |        |        |       |
| =====                                             |         |                   |           |        |        |        |       |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 4.521423359622792  
LM P-Value: 0.10427624704132997  
F Statistic: 2.2722351184372225  
F P-Value: 0.1048529071575612

Regression Summary:

| OLS Regression Results      |                  |                     |           |       |        |        |  |
|-----------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                       |                  |                     |           |       |        |        |  |
| Dep. Variable:              | length_db        | R-squared:          | 0.001     |       |        |        |  |
| Model:                      | OLS              | Adj. R-squared:     | -0.002    |       |        |        |  |
| Method:                     | Least Squares    | F-statistic:        | 0.3076    |       |        |        |  |
| Date:                       | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.580     |       |        |        |  |
| Time:                       | 19:44:12         | Log-Likelihood:     | -912.12   |       |        |        |  |
| No. Observations:           | 313              | AIC:                | 1828.     |       |        |        |  |
| Df Residuals:               | 311              | BIC:                | 1836.     |       |        |        |  |
| Df Model:                   | 1                |                     |           |       |        |        |  |
| Covariance Type:            | nonrobust        |                     |           |       |        |        |  |
| =====                       |                  |                     |           |       |        |        |  |
|                             | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                       |                  |                     |           |       |        |        |  |
| const                       | 6.8531           | 3.139               | 2.184     | 0.030 | 0.678  | 13.029 |  |
| ln_GDP (constant 2015 US\$) | -0.0754          | 0.136               | -0.555    | 0.580 | -0.343 | 0.192  |  |
| =====                       |                  |                     |           |       |        |        |  |
| Omnibus:                    | 149.019          | Durbin-Watson:      | 2.038     |       |        |        |  |
| Prob(Omnibus):              | 0.000            | Jarque-Bera (JB):   | 579.224   |       |        |        |  |
| Skew:                       | 2.113            | Prob(JB):           | 1.67e-126 |       |        |        |  |
| Kurtosis:                   | 8.153            | Cond. No.           | 287.      |       |        |        |  |
| =====                       |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.7321610636372198  
LM P-Value: 0.6934469544167154  
F Statistic: 0.3634218792761867  
F P-Value: 0.6955888720976412



## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:      length_db  R-squared:      0.018
Model:              OLS  Adj. R-squared:    0.015
Method:             Least Squares  F-statistic:    5.804
Date:               Tue, 29 Aug 2023  Prob (F-statistic):  0.0166
Time:               19:44:12  Log-Likelihood:  -904.40
No. Observations:   311  AIC:              1813.
Df Residuals:       309  BIC:              1820.
Df Model:           1
Covariance Type:    nonrobust
=====
```

```
=====
              coef  std err      t  P>|t|  [0.025  0.975]
-----
const          5.5091    0.298   18.514   0.000    4.924    6.095
GDP growth (annual %) -0.1010    0.042   -2.409   0.017   -0.183   -0.019
=====
```

```
=====
Omnibus:          152.508  Durbin-Watson:      2.047
Prob(Omnibus):    0.000  Jarque-Bera (JB):    630.164
Skew:             2.154  Prob(JB):           1.45e-137
Kurtosis:         8.484  Cond. No.           8.43
=====
```

### Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

## White Test Results:

LM Statistic: 0.09659264599985573  
LM P-Value: 0.9528513934563142  
F Statistic: 0.047845302213230675  
F P-Value: 0.9532883298776946

Regression Summary:

| OLS Regression Results      |                  |                     |           |       |        |        |  |
|-----------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                       |                  |                     |           |       |        |        |  |
| Dep. Variable:              | length_db        | R-squared:          | 0.004     |       |        |        |  |
| Model:                      | OLS              | Adj. R-squared:     | 0.001     |       |        |        |  |
| Method:                     | Least Squares    | F-statistic:        | 1.464     |       |        |        |  |
| Date:                       | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.227     |       |        |        |  |
| Time:                       | 19:44:13         | Log-Likelihood:     | -989.62   |       |        |        |  |
| No. Observations:           | 333              | AIC:                | 1983.     |       |        |        |  |
| Df Residuals:               | 331              | BIC:                | 1991.     |       |        |        |  |
| Df Model:                   | 1                |                     |           |       |        |        |  |
| Covariance Type:            | nonrobust        |                     |           |       |        |        |  |
| =====                       |                  |                     |           |       |        |        |  |
|                             | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                       |                  |                     |           |       |        |        |  |
| const                       | 6.4407           | 0.980               | 6.572     | 0.000 | 4.513  | 8.369  |  |
| GDP growth China (annual %) | -0.1183          | 0.098               | -1.210    | 0.227 | -0.311 | 0.074  |  |
| =====                       |                  |                     |           |       |        |        |  |
| Omnibus:                    | 151.379          | Durbin-Watson:      | 2.156     |       |        |        |  |
| Prob(Omnibus):              | 0.000            | Jarque-Bera (JB):   | 539.129   |       |        |        |  |
| Skew:                       | 2.067            | Prob(JB):           | 8.50e-118 |       |        |        |  |
| Kurtosis:                   | 7.665            | Cond. No.           | 38.2      |       |        |        |  |
| =====                       |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.2718130662385252  
LM P-Value: 0.8729242181796733  
F Statistic: 0.13479217478584954  
F P-Value: 0.8739456003836106

Regression Summary:

| OLS Regression Results    |                  |                     |           |       |        |        |  |
|---------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                     |                  |                     |           |       |        |        |  |
| Dep. Variable:            | length_db        | R-squared:          | 0.001     |       |        |        |  |
| Model:                    | OLS              | Adj. R-squared:     | -0.002    |       |        |        |  |
| Method:                   | Least Squares    | F-statistic:        | 0.2746    |       |        |        |  |
| Date:                     | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.601     |       |        |        |  |
| Time:                     | 19:44:13         | Log-Likelihood:     | -990.21   |       |        |        |  |
| No. Observations:         | 333              | AIC:                | 1984.     |       |        |        |  |
| Df Residuals:             | 331              | BIC:                | 1992.     |       |        |        |  |
| Df Model:                 | 1                |                     |           |       |        |        |  |
| Covariance Type:          | nonrobust        |                     |           |       |        |        |  |
| =====                     |                  |                     |           |       |        |        |  |
|                           | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                     |                  |                     |           |       |        |        |  |
| const                     | 5.1481           | 0.386               | 13.350    | 0.000 | 4.390  | 5.907  |  |
| GDP growth USA (annual %) | 0.0644           | 0.123               | 0.524     | 0.601 | -0.177 | 0.306  |  |
| =====                     |                  |                     |           |       |        |        |  |
| Omnibus:                  | 148.596          | Durbin-Watson:      | 2.136     |       |        |        |  |
| Prob(Omnibus):            | 0.000            | Jarque-Bera (JB):   | 511.514   |       |        |        |  |
| Skew:                     | 2.042            | Prob(JB):           | 8.43e-112 |       |        |        |  |
| Kurtosis:                 | 7.494            | Cond. No.           | 4.92      |       |        |        |  |
| =====                     |                  |                     |           |       |        |        |  |

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 3.1193860353353458  
LM P-Value: 0.2102005891644388  
F Statistic: 1.560257481167004  
F P-Value: 0.21162770029364794

Regression Summary:

| OLS Regression Results                 |                  |                     |           |       |        |        |  |
|----------------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                                  |                  |                     |           |       |        |        |  |
| Dep. Variable:                         | length_db        | R-squared:          | 0.029     |       |        |        |  |
| Model:                                 | OLS              | Adj. R-squared:     | 0.026     |       |        |        |  |
| Method:                                | Least Squares    | F-statistic:        | 9.209     |       |        |        |  |
| Date:                                  | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.00261   |       |        |        |  |
| Time:                                  | 19:44:13         | Log-Likelihood:     | -902.56   |       |        |        |  |
| No. Observations:                      | 311              | AIC:                | 1809.     |       |        |        |  |
| Df Residuals:                          | 309              | BIC:                | 1817.     |       |        |        |  |
| Df Model:                              | 1                |                     |           |       |        |        |  |
| Covariance Type:                       | nonrobust        |                     |           |       |        |        |  |
| =====                                  |                  |                     |           |       |        |        |  |
|                                        | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                                  |                  |                     |           |       |        |        |  |
| const                                  | 10.1786          | 1.687               | 6.033     | 0.000 | 6.859  | 13.498 |  |
| ln_GDP per capita (constant 2015 US\$) | -0.6551          | 0.216               | -3.035    | 0.003 | -1.080 | -0.230 |  |
| =====                                  |                  |                     |           |       |        |        |  |
| Omnibus:                               | 145.941          | Durbin-Watson:      | 2.026     |       |        |        |  |
| Prob(Omnibus):                         | 0.000            | Jarque-Bera (JB):   | 555.319   |       |        |        |  |
| Skew:                                  | 2.086            | Prob(JB):           | 2.59e-121 |       |        |        |  |
| Kurtosis:                              | 8.045            | Cond. No.           | 53.4      |       |        |        |  |
| =====                                  |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 2.3252036853466582  
LM P-Value: 0.3126715993257453  
F Statistic: 1.160060269962458  
F P-Value: 0.31483304273984636

Regression Summary:

| OLS Regression Results                                      |                  |                     |          |        |       |        |        |        |       |
|-------------------------------------------------------------|------------------|---------------------|----------|--------|-------|--------|--------|--------|-------|
| =====                                                       |                  |                     |          |        |       |        |        |        |       |
| Dep. Variable:                                              | length_db        | R-squared:          | 0.000    |        |       |        |        |        |       |
| Model:                                                      | OLS              | Adj. R-squared:     | -0.004   |        |       |        |        |        |       |
| Method:                                                     | Least Squares    | F-statistic:        | 0.03292  |        |       |        |        |        |       |
| Date:                                                       | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.856    |        |       |        |        |        |       |
| Time:                                                       | 19:44:14         | Log-Likelihood:     | -755.81  |        |       |        |        |        |       |
| No. Observations:                                           | 255              | AIC:                | 1516.    |        |       |        |        |        |       |
| Df Residuals:                                               | 253              | BIC:                | 1523.    |        |       |        |        |        |       |
| Df Model:                                                   | 1                |                     |          |        |       |        |        |        |       |
| Covariance Type:                                            | nonrobust        |                     |          |        |       |        |        |        |       |
| =====                                                       |                  |                     |          |        |       |        |        |        |       |
|                                                             |                  | coef                | std err  | t      | P> t  | [0.025 | 0.975] |        |       |
| -----                                                       |                  |                     |          |        |       |        |        |        |       |
| const                                                       |                  | 5.1740              | 0.725    | 7.141  | 0.000 | 3.747  | 6.601  |        |       |
| General government final consumption expenditure (% of GDP) |                  |                     |          | 0.0079 | 0.043 | 0.181  | 0.856  | -0.077 | 0.093 |
| =====                                                       |                  |                     |          |        |       |        |        |        |       |
| Omnibus:                                                    | 120.395          | Durbin-Watson:      | 2.107    |        |       |        |        |        |       |
| Prob(Omnibus):                                              | 0.000            | Jarque-Bera (JB):   | 423.429  |        |       |        |        |        |       |
| Skew:                                                       | 2.078            | Prob(JB):           | 1.13e-92 |        |       |        |        |        |       |
| Kurtosis:                                                   | 7.752            | Cond. No.           | 41.3     |        |       |        |        |        |       |
| =====                                                       |                  |                     |          |        |       |        |        |        |       |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.009973933908716814  
LM P-Value: 0.9950254473202444  
F Statistic: 0.004928489525200997  
F P-Value: 0.9950837314642242

Regression Summary:

OLS Regression Results

=====

Dep. Variable:

length\_db

R-squared:

0.002

Model:

OLS

Adj. R-squared:

-0.003

Method:

Least Squares

F-statistic:

0.3757

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.541

Time:

19:44:14

Log-Likelihood:

-587.27

No. Observations:

200

AIC:

1179.

Df Residuals:

198

BIC:

1185.

Df Model:

1

Covariance Type:

nonrobust

=====

|                                                                    | coef   | std err | t      | P> t   | [0.025 | 0.975] |
|--------------------------------------------------------------------|--------|---------|--------|--------|--------|--------|
| -----                                                              |        |         |        |        |        |        |
| const                                                              | 5.1885 | 0.364   | 14.256 | 0.000  | 4.471  | 5.906  |
| General government final consumption expenditure (annual % growth) |        |         |        | 0.0205 | 0.033  | 0.613  |
|                                                                    |        |         |        | 0.541  | -0.045 | 0.086  |

=====

Omnibus:

98.611

Durbin-Watson:

2.209

Prob(Omnibus):

0.000

Jarque-Bera (JB):

344.998

Skew:

2.085

Prob(JB):

1.22e-75

Kurtosis:

7.900

Cond. No.

12.3

=====

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.401859159522889

LM P-Value: 0.49612390263098993

F Statistic: 0.6952891231943538

F P-Value: 0.5001502797059663

Regression Summary:

| OLS Regression Results   |                  |                     |          |       |        |        |  |
|--------------------------|------------------|---------------------|----------|-------|--------|--------|--|
| =====                    |                  |                     |          |       |        |        |  |
| Dep. Variable:           | length_db        | R-squared:          | 0.000    |       |        |        |  |
| Model:                   | OLS              | Adj. R-squared:     | -0.006   |       |        |        |  |
| Method:                  | Least Squares    | F-statistic:        | 0.02775  |       |        |        |  |
| Date:                    | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.868    |       |        |        |  |
| Time:                    | 19:44:15         | Log-Likelihood:     | -402.33  |       |        |        |  |
| No. Observations:        | 170              | AIC:                | 808.7    |       |        |        |  |
| Df Residuals:            | 168              | BIC:                | 814.9    |       |        |        |  |
| Df Model:                | 1                |                     |          |       |        |        |  |
| Covariance Type:         | nonrobust        |                     |          |       |        |        |  |
| =====                    |                  |                     |          |       |        |        |  |
|                          | coef             | std err             | t        | P> t  | [0.025 | 0.975] |  |
| -----                    |                  |                     |          |       |        |        |  |
| const                    | 3.7754           | 0.241               | 15.696   | 0.000 | 3.301  | 4.250  |  |
| Government Effectiveness | 0.0479           | 0.288               | 0.167    | 0.868 | -0.520 | 0.616  |  |
| =====                    |                  |                     |          |       |        |        |  |
| Omnibus:                 | 67.888           | Durbin-Watson:      | 1.737    |       |        |        |  |
| Prob(Omnibus):           | 0.000            | Jarque-Bera (JB):   | 155.457  |       |        |        |  |
| Skew:                    | 1.820            | Prob(JB):           | 1.75e-34 |       |        |        |  |
| Kurtosis:                | 5.950            | Cond. No.           | 1.94     |       |        |        |  |
| =====                    |                  |                     |          |       |        |        |  |

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.5579971556570893  
LM P-Value: 0.4588652991806208  
F Statistic: 0.7723297057776384  
F P-Value: 0.4635783985597197

Regression Summary:

| OLS Regression Results             |                  |                     |          |       |        |        |  |
|------------------------------------|------------------|---------------------|----------|-------|--------|--------|--|
| =====                              |                  |                     |          |       |        |        |  |
| Dep. Variable:                     | length_db        | R-squared:          | 0.005    |       |        |        |  |
| Model:                             | OLS              | Adj. R-squared:     | 0.001    |       |        |        |  |
| Method:                            | Least Squares    | F-statistic:        | 1.348    |       |        |        |  |
| Date:                              | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.247    |       |        |        |  |
| Time:                              | 19:44:15         | Log-Likelihood:     | -777.69  |       |        |        |  |
| No. Observations:                  | 263              | AIC:                | 1559.    |       |        |        |  |
| Df Residuals:                      | 261              | BIC:                | 1567.    |       |        |        |  |
| Df Model:                          | 1                |                     |          |       |        |        |  |
| Covariance Type:                   | nonrobust        |                     |          |       |        |        |  |
| =====                              |                  |                     |          |       |        |        |  |
|                                    | coef             | std err             | t        | P> t  | [0.025 | 0.975] |  |
| -----                              |                  |                     |          |       |        |        |  |
| const                              | 6.0668           | 0.717               | 8.458    | 0.000 | 4.654  | 7.479  |  |
| Gross capital formation (% of GDP) | -0.0322          | 0.028               | -1.161   | 0.247 | -0.087 | 0.022  |  |
| =====                              |                  |                     |          |       |        |        |  |
| Omnibus:                           | 120.176          | Durbin-Watson:      | 2.102    |       |        |        |  |
| Prob(Omnibus):                     | 0.000            | Jarque-Bera (JB):   | 406.710  |       |        |        |  |
| Skew:                              | 2.031            | Prob(JB):           | 4.83e-89 |       |        |        |  |
| Kurtosis:                          | 7.540            | Cond. No.           | 64.5     |       |        |        |  |
| =====                              |                  |                     |          |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.140955273958355  
LM P-Value: 0.5652553873357415  
F Statistic: 0.5664275823268279  
F P-Value: 0.568248103136731



## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:      length_db  R-squared:      0.001
Model:              OLS  Adj. R-squared:    -0.005
Method:            Least Squares  F-statistic:    0.1451
Date:              Tue, 29 Aug 2023  Prob (F-statistic):    0.704
Time:              19:44:15  Log-Likelihood:    -447.01
No. Observations:    185  AIC:      898.0
Df Residuals:        183  BIC:      904.5
Df Model:            1
Covariance Type:    nonrobust
=====
```

```
=====
              coef  std err      t  P>|t|  [0.025  0.975]
-----
const          3.7062   0.296   12.517   0.000    3.122    4.290
Gross debt (% of GDP)  0.0014   0.004    0.381   0.704   -0.006    0.009
=====
```

```
=====
Omnibus:          94.600  Durbin-Watson:      1.694
Prob(Omnibus):    0.000  Jarque-Bera (JB):    346.071
Skew:             2.112  Prob(JB):      7.10e-76
Kurtosis:         8.202  Cond. No.      119.
=====
```

### Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

## White Test Results:

LM Statistic: 2.9933825685098725  
LM P-Value: 0.22386965714053914  
F Statistic: 1.4966368672662849  
F P-Value: 0.22662402718318225

Regression Summary:

| OLS Regression Results            |                  |                     |           |       |        |        |  |
|-----------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                             |                  |                     |           |       |        |        |  |
| Dep. Variable:                    | length_db        | R-squared:          | 0.001     |       |        |        |  |
| Model:                            | OLS              | Adj. R-squared:     | -0.003    |       |        |        |  |
| Method:                           | Least Squares    | F-statistic:        | 0.2279    |       |        |        |  |
| Date:                             | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.633     |       |        |        |  |
| Time:                             | 19:44:16         | Log-Likelihood:     | -757.61   |       |        |        |  |
| No. Observations:                 | 258              | AIC:                | 1519.     |       |        |        |  |
| Df Residuals:                     | 256              | BIC:                | 1526.     |       |        |        |  |
| Df Model:                         | 1                |                     |           |       |        |        |  |
| Covariance Type:                  | nonrobust        |                     |           |       |        |        |  |
| =====                             |                  |                     |           |       |        |        |  |
|                                   | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                             |                  |                     |           |       |        |        |  |
| const                             | 5.3626           | 0.378               | 14.191    | 0.000 | 4.618  | 6.107  |  |
| Gross domestic savings (% of GDP) | -0.0082          | 0.017               | -0.477    | 0.633 | -0.042 | 0.026  |  |
| =====                             |                  |                     |           |       |        |        |  |
| Omnibus:                          | 124.634          | Durbin-Watson:      | 2.074     |       |        |        |  |
| Prob(Omnibus):                    | 0.000            | Jarque-Bera (JB):   | 464.618   |       |        |        |  |
| Skew:                             | 2.105            | Prob(JB):           | 1.29e-101 |       |        |        |  |
| Kurtosis:                         | 8.049            | Cond. No.           | 29.3      |       |        |        |  |
| =====                             |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.18284065018652473  
LM P-Value: 0.9126340272863559  
F Statistic: 0.09042137830380692  
F P-Value: 0.9135754331432948

Regression Summary:

| OLS Regression Results                |                  |                     |           |       |        |        |       |
|---------------------------------------|------------------|---------------------|-----------|-------|--------|--------|-------|
| =====                                 |                  |                     |           |       |        |        |       |
| Dep. Variable:                        | length_db        | R-squared:          | 0.000     |       |        |        |       |
| Model:                                | OLS              | Adj. R-squared:     | -0.004    |       |        |        |       |
| Method:                               | Least Squares    | F-statistic:        | 0.01207   |       |        |        |       |
| Date:                                 | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.913     |       |        |        |       |
| Time:                                 | 19:44:16         | Log-Likelihood:     | -752.70   |       |        |        |       |
| No. Observations:                     | 256              | AIC:                | 1509.     |       |        |        |       |
| Df Residuals:                         | 254              | BIC:                | 1516.     |       |        |        |       |
| Df Model:                             | 1                |                     |           |       |        |        |       |
| Covariance Type:                      | nonrobust        |                     |           |       |        |        |       |
| =====                                 |                  |                     |           |       |        |        |       |
|                                       | coef             | std err             | t         | P> t  | [0.025 | 0.975] |       |
| -----                                 |                  |                     |           |       |        |        |       |
| const                                 | 5.0168           | 2.142               | 2.342     | 0.020 | 0.798  | 9.236  |       |
| Gross national expenditure (% of GDP) |                  | 0.0021              | 0.019     | 0.110 | 0.913  | -0.036 | 0.040 |
| =====                                 |                  |                     |           |       |        |        |       |
| Omnibus:                              | 123.291          | Durbin-Watson:      | 2.086     |       |        |        |       |
| Prob(Omnibus):                        | 0.000            | Jarque-Bera (JB):   | 456.701   |       |        |        |       |
| Skew:                                 | 2.098            | Prob(JB):           | 6.74e-100 |       |        |        |       |
| Kurtosis:                             | 8.021            | Cond. No.           | 821.      |       |        |        |       |
| =====                                 |                  |                     |           |       |        |        |       |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.4172635611715236  
LM P-Value: 0.492317334991737  
F Statistic: 0.7042262291468373  
F P-Value: 0.4954577193136578

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.028

Model:

OLS

Adj. R-squared:

0.024

Method:

Least Squares

F-statistic:

7.543

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.00644

Time:

19:44:17

Log-Likelihood:

-783.53

No. Observations:

267

AIC:

1571.

Df Residuals:

265

BIC:

1578.

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

const

6.7170

0.611

10.992

0.000

5.514

7.920

Imports of goods and services (% of GDP)

-0.0356

0.013

-2.747

0.006

-0.061

-0.010

Omnibus:

125.282

Durbin-Watson:

2.118

Prob(Omnibus):

0.000

Jarque-Bera (JB):

454.859

Skew:

2.060

Prob(JB):

1.69e-99

Kurtosis:

7.891

Cond. No.

103.

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 3.440252119634759  
LM P-Value: 0.1790435762883059  
F Statistic: 1.7229993708975564  
F P-Value: 0.18053130142634977

Regression Summary:

| OLS Regression Results                          |                  |                     |          |        |        |        |       |  |  |
|-------------------------------------------------|------------------|---------------------|----------|--------|--------|--------|-------|--|--|
| =====                                           |                  |                     |          |        |        |        |       |  |  |
| Dep. Variable:                                  | length_db        | R-squared:          | 0.015    |        |        |        |       |  |  |
| Model:                                          | OLS              | Adj. R-squared:     | 0.010    |        |        |        |       |  |  |
| Method:                                         | Least Squares    | F-statistic:        | 3.280    |        |        |        |       |  |  |
| Date:                                           | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.0715   |        |        |        |       |  |  |
| Time:                                           | 19:44:17         | Log-Likelihood:     | -632.74  |        |        |        |       |  |  |
| No. Observations:                               | 218              | AIC:                | 1269.    |        |        |        |       |  |  |
| Df Residuals:                                   | 216              | BIC:                | 1276.    |        |        |        |       |  |  |
| Df Model:                                       | 1                |                     |          |        |        |        |       |  |  |
| Covariance Type:                                | nonrobust        |                     |          |        |        |        |       |  |  |
| =====                                           |                  |                     |          |        |        |        |       |  |  |
|                                                 | coef             | std err             | t        | P> t   | [0.025 | 0.975] |       |  |  |
| -----                                           |                  |                     |          |        |        |        |       |  |  |
| const                                           | 5.3407           | 0.314               | 17.024   | 0.000  | 4.722  | 5.959  |       |  |  |
| Imports of goods and services (annual % growth) | -0.0352          |                     | 0.019    | -1.811 | 0.072  | -0.073 | 0.003 |  |  |
| =====                                           |                  |                     |          |        |        |        |       |  |  |
| Omnibus:                                        | 111.741          | Durbin-Watson:      | 2.176    |        |        |        |       |  |  |
| Prob(Omnibus):                                  | 0.000            | Jarque-Bera (JB):   | 438.828  |        |        |        |       |  |  |
| Skew:                                           | 2.158            | Prob(JB):           | 5.12e-96 |        |        |        |       |  |  |
| Kurtosis:                                       | 8.448            | Cond. No.           | 16.9     |        |        |        |       |  |  |
| =====                                           |                  |                     |          |        |        |        |       |  |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.6548305246258235  
LM P-Value: 0.7207843662879154  
F Statistic: 0.3238824288903848  
F P-Value: 0.7236875789605801

Regression Summary:

| OLS Regression Results                |                  |                     |           |       |        |        |  |
|---------------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                                 |                  |                     |           |       |        |        |  |
| Dep. Variable:                        | length_db        | R-squared:          | 0.000     |       |        |        |  |
| Model:                                | OLS              | Adj. R-squared:     | -0.003    |       |        |        |  |
| Method:                               | Least Squares    | F-statistic:        | 0.1159    |       |        |        |  |
| Date:                                 | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.734     |       |        |        |  |
| Time:                                 | 19:44:18         | Log-Likelihood:     | -788.65   |       |        |        |  |
| No. Observations:                     | 273              | AIC:                | 1581.     |       |        |        |  |
| Df Residuals:                         | 271              | BIC:                | 1589.     |       |        |        |  |
| Df Model:                             | 1                |                     |           |       |        |        |  |
| Covariance Type:                      | nonrobust        |                     |           |       |        |        |  |
| =====                                 |                  |                     |           |       |        |        |  |
|                                       | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                                 |                  |                     |           |       |        |        |  |
| const                                 | 4.9791           | 0.323               | 15.412    | 0.000 | 4.343  | 5.615  |  |
| Inflation, consumer prices (annual %) | -0.0066          | 0.019               | -0.340    | 0.734 | -0.045 | 0.032  |  |
| =====                                 |                  |                     |           |       |        |        |  |
| Omnibus:                              | 141.810          | Durbin-Watson:      | 2.018     |       |        |        |  |
| Prob(Omnibus):                        | 0.000            | Jarque-Bera (JB):   | 616.835   |       |        |        |  |
| Skew:                                 | 2.234            | Prob(JB):           | 1.14e-134 |       |        |        |  |
| Kurtosis:                             | 8.853            | Cond. No.           | 20.4      |       |        |        |  |
| =====                                 |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.21620595802232967  
LM P-Value: 0.897535164387522  
F Statistic: 0.10699977407207972  
F P-Value: 0.8985639573432483

Regression Summary:

| OLS Regression Results           |                  |                     |           |       |        |        |  |
|----------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                            |                  |                     |           |       |        |        |  |
| Dep. Variable:                   | length_db        | R-squared:          | 0.019     |       |        |        |  |
| Model:                           | OLS              | Adj. R-squared:     | 0.012     |       |        |        |  |
| Method:                          | Least Squares    | F-statistic:        | 2.633     |       |        |        |  |
| Date:                            | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.107     |       |        |        |  |
| Time:                            | 19:44:18         | Log-Likelihood:     | -351.48   |       |        |        |  |
| No. Observations:                | 135              | AIC:                | 707.0     |       |        |        |  |
| Df Residuals:                    | 133              | BIC:                | 712.8     |       |        |        |  |
| Df Model:                        | 1                |                     |           |       |        |        |  |
| Covariance Type:                 | nonrobust        |                     |           |       |        |        |  |
| =====                            |                  |                     |           |       |        |        |  |
|                                  | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                            |                  |                     |           |       |        |        |  |
| const                            | 3.6552           | 0.377               | 9.688     | 0.000 | 2.909  | 4.402  |  |
| Interest payments (% of revenue) | 0.0405           | 0.025               | 1.623     | 0.107 | -0.009 | 0.090  |  |
| =====                            |                  |                     |           |       |        |        |  |
| Omnibus:                         | 95.237           | Durbin-Watson:      | 1.757     |       |        |        |  |
| Prob(Omnibus):                   | 0.000            | Jarque-Bera (JB):   | 532.212   |       |        |        |  |
| Skew:                            | 2.621            | Prob(JB):           | 2.70e-116 |       |        |        |  |
| Kurtosis:                        | 11.193           | Cond. No.           | 20.2      |       |        |        |  |
| =====                            |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.0168872408863168  
LM P-Value: 0.6014309055279881  
F Statistic: 0.5009180374780631  
F P-Value: 0.6071212830278462

## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:      length_db  R-squared:      0.007
Model:              OLS  Adj. R-squared:    -0.010
Method:             Least Squares  F-statistic:    0.4203
Date:               Tue, 29 Aug 2023  Prob (F-statistic):    0.519
Time:               19:44:18  Log-Likelihood:    -139.58
No. Observations:   62  AIC:      283.2
Df Residuals:       60  BIC:      287.4
Df Model:           1
Covariance Type:    nonrobust
=====
```

```
=====
              coef  std err      t    P>|t|    [0.025    0.975]
-----
const          3.4800    0.368    9.452    0.000    2.744    4.216
Net debt (% of GDP) -0.0027    0.004   -0.648    0.519   -0.011    0.006
=====
```

```
=====
Omnibus:          43.415  Durbin-Watson:      1.906
Prob(Omnibus):    0.000  Jarque-Bera (JB):    116.660
Skew:             2.245  Prob(JB):      4.65e-26
Kurtosis:         8.000  Cond. No.      108.
=====
```

### Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

## White Test Results:

LM Statistic: 2.0079060869277967  
LM P-Value: 0.3664280683110125  
F Statistic: 0.9873505940665828  
F P-Value: 0.37863326200038616



Regression Summary:

| OLS Regression Results |                  |                     |         |
|------------------------|------------------|---------------------|---------|
| =====                  |                  |                     |         |
| Dep. Variable:         | length_db        | R-squared:          | 0.037   |
| Model:                 | OLS              | Adj. R-squared:     | 0.033   |
| Method:                | Least Squares    | F-statistic:        | 7.737   |
| Date:                  | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.00593 |
| Time:                  | 19:44:19         | Log-Likelihood:     | -479.19 |
| No. Observations:      | 201              | AIC:                | 962.4   |
| Df Residuals:          | 199              | BIC:                | 969.0   |
| Df Model:              | 1                |                     |         |
| Covariance Type:       | nonrobust        |                     |         |
| =====                  |                  |                     |         |

|                                                    | coef    | std err           | t        | P> t   | [0.025 | 0.975] |        |  |
|----------------------------------------------------|---------|-------------------|----------|--------|--------|--------|--------|--|
| -----                                              |         |                   |          |        |        |        |        |  |
| const                                              | 3.5793  | 0.206             | 17.364   | 0.000  | 3.173  | 3.986  |        |  |
| Net lending/borrowing (overall balance) (% of GDP) | -0.0842 |                   | 0.030    | -2.782 | 0.006  | -0.144 | -0.025 |  |
| =====                                              |         |                   |          |        |        |        |        |  |
| Omnibus:                                           | 98.271  | Durbin-Watson:    | 1.712    |        |        |        |        |  |
| Prob(Omnibus):                                     | 0.000   | Jarque-Bera (JB): | 349.281  |        |        |        |        |  |
| Skew:                                              | 2.055   | Prob(JB):         | 1.43e-76 |        |        |        |        |  |
| Kurtosis:                                          | 7.981   | Cond. No.         | 7.58     |        |        |        |        |  |
| =====                                              |         |                   |          |        |        |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 2.516453555535257  
LM P-Value: 0.28415745433607265  
F Statistic: 1.255161480448096  
F P-Value: 0.28728762689168214

Regression Summary:

| OLS Regression Results                      |                  |                     |         |       |          |        |  |
|---------------------------------------------|------------------|---------------------|---------|-------|----------|--------|--|
| =====                                       |                  |                     |         |       |          |        |  |
| Dep. Variable:                              | length_db        | R-squared:          | 0.586   |       |          |        |  |
| Model:                                      | OLS              | Adj. R-squared:     | 0.482   |       |          |        |  |
| Method:                                     | Least Squares    | F-statistic:        | 5.653   |       |          |        |  |
| Date:                                       | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.0762  |       |          |        |  |
| Time:                                       | 19:44:19         | Log-Likelihood:     | -13.520 |       |          |        |  |
| No. Observations:                           | 6                | AIC:                | 31.04   |       |          |        |  |
| Df Residuals:                               | 4                | BIC:                | 30.62   |       |          |        |  |
| Df Model:                                   | 1                |                     |         |       |          |        |  |
| Covariance Type:                            | nonrobust        |                     |         |       |          |        |  |
| =====                                       |                  |                     |         |       |          |        |  |
|                                             | coef             | std err             | t       | P> t  | [0.025   | 0.975] |  |
| -----                                       |                  |                     |         |       |          |        |  |
| const                                       | -64.2541         | 28.800              | -2.231  | 0.090 | -144.214 | 15.706 |  |
| ln_Net official aid received (current US\$) | 3.6883           | 1.551               | 2.378   | 0.076 | -0.619   | 7.995  |  |
| =====                                       |                  |                     |         |       |          |        |  |
| Omnibus:                                    | nan              | Durbin-Watson:      | 2.008   |       |          |        |  |
| Prob(Omnibus):                              | nan              | Jarque-Bera (JB):   | 0.312   |       |          |        |  |
| Skew:                                       | -0.021           | Prob(JB):           | 0.856   |       |          |        |  |
| Kurtosis:                                   | 1.884            | Cond. No.           | 466.    |       |          |        |  |
| =====                                       |                  |                     |         |       |          |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 3.8714112647378705  
LM P-Value: 0.14432239433179683  
F Statistic: 2.728153541783953  
F P-Value: 0.21130548167966492

Regression Summary:

| OLS Regression Results            |                  |                     |           |       |        |        |  |
|-----------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                             |                  |                     |           |       |        |        |  |
| Dep. Variable:                    | length_db        | R-squared:          | 0.003     |       |        |        |  |
| Model:                            | OLS              | Adj. R-squared:     | -0.001    |       |        |        |  |
| Method:                           | Least Squares    | F-statistic:        | 0.7956    |       |        |        |  |
| Date:                             | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.373     |       |        |        |  |
| Time:                             | 19:44:19         | Log-Likelihood:     | -896.26   |       |        |        |  |
| No. Observations:                 | 308              | AIC:                | 1797.     |       |        |        |  |
| Df Residuals:                     | 306              | BIC:                | 1804.     |       |        |        |  |
| Df Model:                         | 1                |                     |           |       |        |        |  |
| Covariance Type:                  | nonrobust        |                     |           |       |        |        |  |
| =====                             |                  |                     |           |       |        |        |  |
|                                   | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                             |                  |                     |           |       |        |        |  |
| const                             | 4.9243           | 0.275               | 17.878    | 0.000 | 4.382  | 5.466  |  |
| Official Exchange Rate (annual %) | 0.0172           | 0.019               | 0.892     | 0.373 | -0.021 | 0.055  |  |
| =====                             |                  |                     |           |       |        |        |  |
| Omnibus:                          | 152.808          | Durbin-Watson:      | 2.056     |       |        |        |  |
| Prob(Omnibus):                    | 0.000            | Jarque-Bera (JB):   | 628.307   |       |        |        |  |
| Skew:                             | 2.185            | Prob(JB):           | 3.67e-137 |       |        |        |  |
| Kurtosis:                         | 8.464            | Cond. No.           | 15.5      |       |        |        |  |
| =====                             |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.8273433077487393  
LM P-Value: 0.6612180240028446  
F Statistic: 0.4107457212836743  
F P-Value: 0.663521807568712

Regression Summary:

OLS Regression Results

=====

|                   |                  |                     |         |
|-------------------|------------------|---------------------|---------|
| Dep. Variable:    | length_db        | R-squared:          | 0.018   |
| Model:            | OLS              | Adj. R-squared:     | 0.015   |
| Method:           | Least Squares    | F-statistic:        | 1.558   |
| Date:             | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.213   |
| Time:             | 19:44:20         | Log-Likelihood:     | -926.98 |
| No. Observations: | 315              | AIC:                | 1858.   |
| Df Residuals:     | 313              | BIC:                | 1865.   |
| Df Model:         | 1                |                     |         |
| Covariance Type:  | HC3              |                     |         |

=====

|                                                          | coef    | std err           | z         | P> z   | [0.025 | 0.975] |       |  |
|----------------------------------------------------------|---------|-------------------|-----------|--------|--------|--------|-------|--|
| -----                                                    |         |                   |           |        |        |        |       |  |
| const                                                    | 5.5612  | 0.448             | 12.402    | 0.000  | 4.682  | 6.440  |       |  |
| ln_Official exchange rate (LCU per US\$, period average) | -0.1626 |                   | 0.130     | -1.248 | 0.212  | -0.418 | 0.093 |  |
| =====                                                    |         |                   |           |        |        |        |       |  |
| Omnibus:                                                 | 142.290 | Durbin-Watson:    | 2.038     |        |        |        |       |  |
| Prob(Omnibus):                                           | 0.000   | Jarque-Bera (JB): | 506.588   |        |        |        |       |  |
| Skew:                                                    | 2.034   | Prob(JB):         | 9.91e-111 |        |        |        |       |  |
| Kurtosis:                                                | 7.696   | Cond. No.         | 5.50      |        |        |        |       |  |
| =====                                                    |         |                   |           |        |        |        |       |  |

Notes:

[1] Standard Errors are heteroscedasticity robust (HC3)

White Test Results:

LM Statistic: 13.369127213588067  
LM P-Value: 0.0012500601525396514  
F Statistic: 6.914358023280208  
F P-Value: 0.0011528610524427125

## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:      length_db  R-squared:      0.001
Model:              OLS  Adj. R-squared:    -0.002
Method:             Least Squares  F-statistic:    0.1789
Date:               Tue, 29 Aug 2023  Prob (F-statistic):  0.673
Time:               19:44:20  Log-Likelihood:    -990.26
No. Observations:   333  AIC:      1985.
Df Residuals:       331  BIC:      1992.
Df Model:           1
Covariance Type:    nonrobust
=====
```

```
=====
              coef  std err      t    P>|t|    [0.025    0.975]
-----
const         5.5184    0.584    9.451    0.000    4.370    6.667
Oil price     -0.0030    0.007   -0.423    0.673   -0.017    0.011
=====
```

```
=====
Omnibus:        149.647  Durbin-Watson:      2.138
Prob(Omnibus):   0.000  Jarque-Bera (JB):    521.348
Skew:            2.052  Prob(JB):      6.18e-114
Kurtosis:        7.554  Cond. No.      187.
=====
```

### Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

## White Test Results:

LM Statistic: 0.41563034836842516  
LM P-Value: 0.8123571674136749  
F Statistic: 0.2062003321221058  
F P-Value: 0.8137748118322932

## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:      length_db  R-squared:      0.000
Model:              OLS  Adj. R-squared:    -0.003
Method:            Least Squares  F-statistic:    0.1487
Date:              Tue, 29 Aug 2023  Prob (F-statistic):    0.700
Time:              19:44:21  Log-Likelihood:    -990.28
No. Observations:    333  AIC:      1985.
Df Residuals:        331  BIC:      1992.
Df Model:            1
Covariance Type:     nonrobust
=====
```

```
=====
              coef  std err      t    P>|t|    [0.025    0.975]
-----
const          5.3019    0.261   20.353   0.000    4.789    5.814
Oil price (% change) -0.4298    1.115   -0.386   0.700   -2.623    1.763
=====
```

```
=====
Omnibus:      148.690  Durbin-Watson:      2.149
Prob(Omnibus):    0.000  Jarque-Bera (JB):    511.071
Skew:           2.044  Prob(JB):      1.05e-111
Kurtosis:        7.486  Cond. No.      4.28
=====
```

### Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

## White Test Results:

LM Statistic: 1.1395496672834051  
LM P-Value: 0.5656527903402082  
F Statistic: 0.5665806061350434  
F P-Value: 0.5680135193581776

Regression Summary:

| OLS Regression Results                                     |                  |                     |          |        |       |        |        |  |  |
|------------------------------------------------------------|------------------|---------------------|----------|--------|-------|--------|--------|--|--|
| =====                                                      |                  |                     |          |        |       |        |        |  |  |
| Dep. Variable:                                             | length_db        | R-squared:          | 0.014    |        |       |        |        |  |  |
| Model:                                                     | OLS              | Adj. R-squared:     | 0.008    |        |       |        |        |  |  |
| Method:                                                    | Least Squares    | F-statistic:        | 2.648    |        |       |        |        |  |  |
| Date:                                                      | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.105    |        |       |        |        |  |  |
| Time:                                                      | 19:44:21         | Log-Likelihood:     | -467.10  |        |       |        |        |  |  |
| No. Observations:                                          | 194              | AIC:                | 938.2    |        |       |        |        |  |  |
| Df Residuals:                                              | 192              | BIC:                | 944.7    |        |       |        |        |  |  |
| Df Model:                                                  | 1                |                     |          |        |       |        |        |  |  |
| Covariance Type:                                           | nonrobust        |                     |          |        |       |        |        |  |  |
| =====                                                      |                  |                     |          |        |       |        |        |  |  |
|                                                            |                  | coef                | std err  | t      | P> t  | [0.025 | 0.975] |  |  |
| -----                                                      |                  |                     |          |        |       |        |        |  |  |
| const                                                      |                  | 3.8159              | 0.198    | 19.320 | 0.000 | 3.426  | 4.205  |  |  |
| Primary net lending/borrowing (primary balance) (% of GDP) |                  | -0.0541             | 0.033    | -1.627 | 0.105 | -0.120 | 0.011  |  |  |
| =====                                                      |                  |                     |          |        |       |        |        |  |  |
| Omnibus:                                                   | 95.659           | Durbin-Watson:      | 1.639    |        |       |        |        |  |  |
| Prob(Omnibus):                                             | 0.000            | Jarque-Bera (JB):   | 344.714  |        |       |        |        |  |  |
| Skew:                                                      | 2.051            | Prob(JB):           | 1.40e-75 |        |       |        |        |  |  |
| Kurtosis:                                                  | 8.081            | Cond. No.           | 6.05     |        |       |        |        |  |  |
| =====                                                      |                  |                     |          |        |       |        |        |  |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.3054263817509457  
LM P-Value: 0.8583758765436615  
F Statistic: 0.15058872797697617  
F P-Value: 0.8603034311247139

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.002

Model:

OLS

Adj. R-squared:

-0.003

Method:

Least Squares

F-statistic:

0.4069

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.524

Time:

19:44:21

Log-Likelihood:

-474.22

No. Observations:

186

AIC:

952.4

Df Residuals:

184

BIC:

958.9

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

-----

const

4.3550

0.265

16.413

0.000

3.832

4.879

Real interest rate (%)

-0.0113

0.018

-0.638

0.524

-0.046

0.024

Omnibus:

71.438

Durbin-Watson:

1.455

Prob(Omnibus):

0.000

Jarque-Bera (JB):

166.659

Skew:

1.760

Prob(JB):

6.46e-37

Kurtosis:

6.019

Cond. No.

17.4

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.6503719173823477  
LM P-Value: 0.7223930058930046  
F Statistic: 0.32106366252841656  
F P-Value: 0.7257848283177983



Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.086

Model:

OLS

Adj. R-squared:

0.084

Method:

Least Squares

F-statistic:

33.99

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

1.32e-08

Time:

19:44:22

Log-Likelihood:

-975.30

No. Observations:

333

AIC:

1955.

Df Residuals:

331

BIC:

1962.

Df Model:

1

Covariance Type:

HC3

coef

std err

z

P>|z|

[0.025

0.975]

const

2.2762

0.416

5.476

0.000

1.461

3.091

Real interest rate USA (%)

0.6470

0.111

5.830

0.000

0.429

0.864

Omnibus:

131.404

Durbin-Watson:

2.047

Prob(Omnibus):

0.000

Jarque-Bera (JB):

409.424

Skew:

1.818

Prob(JB):

1.24e-89

Kurtosis:

7.037

Cond. No.

12.7

Notes:  
[1] Standard Errors are heteroscedasticity robust (HC3)

White Test Results:

LM Statistic: 19.006172731003492  
LM P-Value: 7.462116592194784e-05  
F Statistic: 9.987516404037363  
F P-Value: 6.147304104022847e-05

## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:    length_db  R-squared:        0.000
Model:            OLS  Adj. R-squared:    -0.005
Method:           Least Squares  F-statistic:    0.02003
Date:            Tue, 29 Aug 2023  Prob (F-statistic):    0.888
Time:            19:44:22  Log-Likelihood:    -491.22
No. Observations:    205  AIC:            986.4
Df Residuals:        203  BIC:            993.1
Df Model:           1
Covariance Type:    nonrobust
=====
```

```
=====
               coef  std err      t    P>|t|   [0.025   0.975]
-----
const          3.8687    0.456    8.483   0.000    2.969    4.768
Revenue (% of GDP) -0.0025    0.018   -0.142   0.888   -0.037    0.032
=====
```

```
=====
Omnibus:        101.782  Durbin-Watson:        1.759
Prob(Omnibus):    0.000  Jarque-Bera (JB):        381.215
Skew:            2.072  Prob(JB):        1.66e-83
Kurtosis:        8.240  Cond. No.        63.4
=====
```

### Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

## White Test Results:

LM Statistic: 1.723896952052462  
LM P-Value: 0.42233836390354185  
F Statistic: 0.8565374362584557  
F P-Value: 0.42616619557871416

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.001

Model:

OLS

Adj. R-squared:

-0.003

Method:

Least Squares

F-statistic:

0.1834

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.669

Time:

19:44:23

Log-Likelihood:

-768.10

No. Observations:

258

AIC:

1540.

Df Residuals:

256

BIC:

1547.

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

-----

const

5.2166

0.409

12.747

0.000

4.411

6.023

Short-term debt (% of total external debt)

0.0105

0.024

0.428

0.669

-0.038

0.059

Omnibus:

119.848

Durbin-Watson:

2.211

Prob(Omnibus):

0.000

Jarque-Bera (JB):

411.857

Skew:

2.056

Prob(JB):

3.69e-90

Kurtosis:

7.627

Cond. No.

23.1

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.1364612431560965  
LM P-Value: 0.5665269529754247  
F Statistic: 0.5641081221713165  
F P-Value: 0.5695755314655474

Regression Summary:

| OLS Regression Results                |                  |                     |           |       |        |        |       |
|---------------------------------------|------------------|---------------------|-----------|-------|--------|--------|-------|
| =====                                 |                  |                     |           |       |        |        |       |
| Dep. Variable:                        | length_db        | R-squared:          | 0.006     |       |        |        |       |
| Model:                                | OLS              | Adj. R-squared:     | 0.001     |       |        |        |       |
| Method:                               | Least Squares    | F-statistic:        | 1.209     |       |        |        |       |
| Date:                                 | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.273     |       |        |        |       |
| Time:                                 | 19:44:23         | Log-Likelihood:     | -641.48   |       |        |        |       |
| No. Observations:                     | 220              | AIC:                | 1287.     |       |        |        |       |
| Df Residuals:                         | 218              | BIC:                | 1294.     |       |        |        |       |
| Df Model:                             | 1                |                     |           |       |        |        |       |
| Covariance Type:                      | nonrobust        |                     |           |       |        |        |       |
| =====                                 |                  |                     |           |       |        |        |       |
|                                       | coef             | std err             | t         | P> t  | [0.025 | 0.975] |       |
| -----                                 |                  |                     |           |       |        |        |       |
| const                                 | 4.9559           | 0.309               | 16.014    | 0.000 | 4.346  | 5.566  |       |
| Short-term debt (% of total reserves) |                  | 0.0004              | 0.000     | 1.099 | 0.273  | -0.000 | 0.001 |
| =====                                 |                  |                     |           |       |        |        |       |
| Omnibus:                              | 115.440          | Durbin-Watson:      | 2.158     |       |        |        |       |
| Prob(Omnibus):                        | 0.000            | Jarque-Bera (JB):   | 466.604   |       |        |        |       |
| Skew:                                 | 2.210            | Prob(JB):           | 4.77e-102 |       |        |        |       |
| Kurtosis:                             | 8.601            | Cond. No.           | 786.      |       |        |        |       |
| =====                                 |                  |                     |           |       |        |        |       |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.8921232032997026  
LM P-Value: 0.3882671669710983  
F Statistic: 0.9412560911285861  
F P-Value: 0.3917243904115876

Regression Summary:

OLS Regression Results

=====

Dep. Variable:

length\_db

R-squared:

0.098

Model:

OLS

Adj. R-squared:

0.094

Method:

Least Squares

F-statistic:

7.245

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.00763

Time:

19:44:23

Log-Likelihood:

-674.81

No. Observations:

231

AIC:

1354.

Df Residuals:

229

BIC:

1361.

Df Model:

1

Covariance Type:

HC3

=====

|                                                                         | coef   | std err           | z        | P> z   | [0.025 | 0.975] |       |       |       |
|-------------------------------------------------------------------------|--------|-------------------|----------|--------|--------|--------|-------|-------|-------|
| -----                                                                   |        |                   |          |        |        |        |       |       |       |
| const                                                                   | 3.6144 | 0.556             | 6.497    | 0.000  | 2.524  | 4.705  |       |       |       |
| Total debt service (% of exports of goods, services and primary income) |        |                   |          | 0.0969 | 0.036  | 2.692  | 0.007 | 0.026 | 0.167 |
| =====                                                                   |        |                   |          |        |        |        |       |       |       |
| Omnibus:                                                                | 98.343 | Durbin-Watson:    | 2.174    |        |        |        |       |       |       |
| Prob(Omnibus):                                                          | 0.000  | Jarque-Bera (JB): | 349.443  |        |        |        |       |       |       |
| Skew:                                                                   | 1.791  | Prob(JB):         | 1.32e-76 |        |        |        |       |       |       |
| Kurtosis:                                                               | 7.845  | Cond. No.         | 34.9     |        |        |        |       |       |       |
| =====                                                                   |        |                   |          |        |        |        |       |       |       |

Notes:

[1] Standard Errors are heteroscedasticity robust (HC3)

White Test Results:

LM Statistic: 17.84865849613254

LM P-Value: 0.00013311072622872048

F Statistic: 9.54602046697506

F P-Value: 0.00010439370378080204

Regression Summary:

| OLS Regression Results                           |                  |                     |           |       |        |        |  |
|--------------------------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                                            |                  |                     |           |       |        |        |  |
| Dep. Variable:                                   | length_db        | R-squared:          | 0.016     |       |        |        |  |
| Model:                                           | OLS              | Adj. R-squared:     | 0.013     |       |        |        |  |
| Method:                                          | Least Squares    | F-statistic:        | 4.598     |       |        |        |  |
| Date:                                            | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.0329    |       |        |        |  |
| Time:                                            | 19:44:24         | Log-Likelihood:     | -820.01   |       |        |        |  |
| No. Observations:                                | 284              | AIC:                | 1644.     |       |        |        |  |
| Df Residuals:                                    | 282              | BIC:                | 1651.     |       |        |        |  |
| Df Model:                                        | 1                |                     |           |       |        |        |  |
| Covariance Type:                                 | nonrobust        |                     |           |       |        |        |  |
| =====                                            |                  |                     |           |       |        |        |  |
|                                                  | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                                            |                  |                     |           |       |        |        |  |
| const                                            | 9.9538           | 2.369               | 4.202     | 0.000 | 5.291  | 14.617 |  |
| ln_Total reserves (including gold, current US\$) | -0.2500          | 0.117               | -2.144    | 0.033 | -0.480 | -0.020 |  |
| =====                                            |                  |                     |           |       |        |        |  |
| Omnibus:                                         | 142.547          | Durbin-Watson:      | 2.046     |       |        |        |  |
| Prob(Omnibus):                                   | 0.000            | Jarque-Bera (JB):   | 580.563   |       |        |        |  |
| Skew:                                            | 2.193            | Prob(JB):           | 8.56e-127 |       |        |        |  |
| Kurtosis:                                        | 8.461            | Cond. No.           | 187.      |       |        |        |  |
| =====                                            |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.5605648369440708  
LM P-Value: 0.45827656725949417  
F Statistic: 0.7763057572468991  
F P-Value: 0.4610868031941423

Regression Summary:

| OLS Regression Results              |                  |                     |           |       |        |        |  |
|-------------------------------------|------------------|---------------------|-----------|-------|--------|--------|--|
| =====                               |                  |                     |           |       |        |        |  |
| Dep. Variable:                      | length_db        | R-squared:          | 0.029     |       |        |        |  |
| Model:                              | OLS              | Adj. R-squared:     | 0.025     |       |        |        |  |
| Method:                             | Least Squares    | F-statistic:        | 7.414     |       |        |        |  |
| Date:                               | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.00693   |       |        |        |  |
| Time:                               | 19:44:24         | Log-Likelihood:     | -724.92   |       |        |        |  |
| No. Observations:                   | 253              | AIC:                | 1454.     |       |        |        |  |
| Df Residuals:                       | 251              | BIC:                | 1461.     |       |        |        |  |
| Df Model:                           | 1                |                     |           |       |        |        |  |
| Covariance Type:                    | nonrobust        |                     |           |       |        |        |  |
| =====                               |                  |                     |           |       |        |        |  |
|                                     | coef             | std err             | t         | P> t  | [0.025 | 0.975] |  |
| -----                               |                  |                     |           |       |        |        |  |
| const                               | 5.6488           | 0.409               | 13.798    | 0.000 | 4.842  | 6.455  |  |
| Total reserves in months of imports | -0.2397          | 0.088               | -2.723    | 0.007 | -0.413 | -0.066 |  |
| =====                               |                  |                     |           |       |        |        |  |
| Omnibus:                            | 132.875          | Durbin-Watson:      | 2.006     |       |        |        |  |
| Prob(Omnibus):                      | 0.000            | Jarque-Bera (JB):   | 575.959   |       |        |        |  |
| Skew:                               | 2.235            | Prob(JB):           | 8.55e-126 |       |        |        |  |
| Kurtosis:                           | 8.886            | Cond. No.           | 7.29      |       |        |        |  |
| =====                               |                  |                     |           |       |        |        |  |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 3.97260171840617  
LM P-Value: 0.13720201747048594  
F Statistic: 1.994058558324796  
F P-Value: 0.1383013011649641

## Regression Summary:

### OLS Regression Results

```
=====
Dep. Variable:      length_db  R-squared:      0.042
Model:              OLS  Adj. R-squared:    0.039
Method:             Least Squares  F-statistic:    17.07
Date:               Tue, 29 Aug 2023  Prob (F-statistic):  4.83e-05
Time:               19:44:25  Log-Likelihood:   -781.48
No. Observations:   267  AIC:               1567.
Df Residuals:       265  BIC:               1574.
Df Model:            1
Covariance Type:    HC3
=====
```

```
=====
              coef  std err      z  P>|z|  [0.025  0.975]
-----
const          7.0798    0.619   11.441   0.000    5.867    8.293
Trade (% of GDP) -0.0253    0.006   -4.132   0.000   -0.037   -0.013
=====
```

```
=====
Omnibus:          124.111  Durbin-Watson:      2.131
Prob(Omnibus):     0.000  Jarque-Bera (JB):    447.394
Skew:              2.040  Prob(JB):          7.07e-98
Kurtosis:          7.854  Cond. No.          180.
=====
```

### Notes:

[1] Standard Errors are heteroscedasticity robust (HC3)

## White Test Results:

LM Statistic: 4.75810072187491  
LM P-Value: 0.09263850889894076  
F Statistic: 2.39499979605234  
F P-Value: 0.09315116079850287



Regression Summary:

| OLS Regression Results                                              |                  |                     |          |        |         |        |        |       |              |
|---------------------------------------------------------------------|------------------|---------------------|----------|--------|---------|--------|--------|-------|--------------|
| =====                                                               |                  |                     |          |        |         |        |        |       |              |
| Dep. Variable:                                                      | length_db        | R-squared:          | 0.008    |        |         |        |        |       |              |
| Model:                                                              | OLS              | Adj. R-squared:     | 0.004    |        |         |        |        |       |              |
| Method:                                                             | Least Squares    | F-statistic:        | 1.820    |        |         |        |        |       |              |
| Date:                                                               | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.179    |        |         |        |        |       |              |
| Time:                                                               | 19:44:25         | Log-Likelihood:     | -539.31  |        |         |        |        |       |              |
| No. Observations:                                                   | 224              | AIC:                | 1083.    |        |         |        |        |       |              |
| Df Residuals:                                                       | 222              | BIC:                | 1089.    |        |         |        |        |       |              |
| Df Model:                                                           | 1                |                     |          |        |         |        |        |       |              |
| Covariance Type:                                                    | nonrobust        |                     |          |        |         |        |        |       |              |
| =====                                                               |                  |                     |          |        |         |        |        |       |              |
|                                                                     |                  | coef                | std err  | t      | P> t    | [0.025 | 0.975] |       |              |
| -----                                                               |                  |                     |          |        |         |        |        |       |              |
| const                                                               |                  | 4.2302              | 0.295    | 14.337 | 0.000   | 3.649  | 4.812  |       |              |
| Unemployment, total (% of total labor force) (modeled ILO estimate) |                  |                     |          |        | -0.0433 | 0.032  | -1.349 | 0.179 | -0.107 0.020 |
| =====                                                               |                  |                     |          |        |         |        |        |       |              |
| Omnibus:                                                            | 66.735           | Durbin-Watson:      | 1.746    |        |         |        |        |       |              |
| Prob(Omnibus):                                                      | 0.000            | Jarque-Bera (JB):   | 122.774  |        |         |        |        |       |              |
| Skew:                                                               | 1.565            | Prob(JB):           | 2.19e-27 |        |         |        |        |       |              |
| Kurtosis:                                                           | 4.831            | Cond. No.           | 15.2     |        |         |        |        |       |              |
| =====                                                               |                  |                     |          |        |         |        |        |       |              |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 1.567457892511218  
LM P-Value: 0.45669982304503143  
F Statistic: 0.7786814621701839  
F P-Value: 0.46026602467782296

Regression Summary:

| OLS Regression Results                                           |                  |                     |          |        |       |        |        |        |       |
|------------------------------------------------------------------|------------------|---------------------|----------|--------|-------|--------|--------|--------|-------|
| =====                                                            |                  |                     |          |        |       |        |        |        |       |
| Dep. Variable:                                                   | length_db        | R-squared:          | 0.017    |        |       |        |        |        |       |
| Model:                                                           | OLS              | Adj. R-squared:     | 0.010    |        |       |        |        |        |       |
| Method:                                                          | Least Squares    | F-statistic:        | 2.329    |        |       |        |        |        |       |
| Date:                                                            | Tue, 29 Aug 2023 | Prob (F-statistic): | 0.129    |        |       |        |        |        |       |
| Time:                                                            | 19:44:25         | Log-Likelihood:     | -339.16  |        |       |        |        |        |       |
| No. Observations:                                                | 134              | AIC:                | 682.3    |        |       |        |        |        |       |
| Df Residuals:                                                    | 132              | BIC:                | 688.1    |        |       |        |        |        |       |
| Df Model:                                                        | 1                |                     |          |        |       |        |        |        |       |
| Covariance Type:                                                 | nonrobust        |                     |          |        |       |        |        |        |       |
| =====                                                            |                  |                     |          |        |       |        |        |        |       |
|                                                                  |                  | coef                | std err  | t      | P> t  | [0.025 | 0.975] |        |       |
| -----                                                            |                  |                     |          |        |       |        |        |        |       |
| const                                                            |                  | 3.7230              | 0.433    | 8.595  | 0.000 | 2.866  | 4.580  |        |       |
| Unemployment, total (% of total labor force) (national estimate) |                  |                     |          | 0.0648 | 0.042 | 1.526  | 0.129  | -0.019 | 0.149 |
| =====                                                            |                  |                     |          |        |       |        |        |        |       |
| Omnibus:                                                         | 46.757           | Durbin-Watson:      | 1.957    |        |       |        |        |        |       |
| Prob(Omnibus):                                                   | 0.000            | Jarque-Bera (JB):   | 87.331   |        |       |        |        |        |       |
| Skew:                                                            | 1.609            | Prob(JB):           | 1.09e-19 |        |       |        |        |        |       |
| Kurtosis:                                                        | 5.299            | Cond. No.           | 16.8     |        |       |        |        |        |       |
| =====                                                            |                  |                     |          |        |       |        |        |        |       |

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 0.926346709636295  
LM P-Value: 0.6292835337194846  
F Statistic: 0.4559558408514172  
F P-Value: 0.634843874545516

Regression Summary:

OLS Regression Results

Dep. Variable:

length\_db

R-squared:

0.006

Model:

OLS

Adj. R-squared:

0.002

Method:

Least Squares

F-statistic:

1.553

Date:

Tue, 29 Aug 2023

Prob (F-statistic):

0.214

Time:

19:44:26

Log-Likelihood:

-712.89

No. Observations:

242

AIC:

1430.

Df Residuals:

240

BIC:

1437.

Df Model:

1

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

-----

const

5.4394

0.378

14.399

0.000

4.695

6.184

ln\_Use of IMF credit (DOD, current US\$)

-0.0208

0.017

-1.246

0.214

-0.054

0.012

Omnibus:

122.338

Durbin-Watson:

2.193

Prob(Omnibus):

0.000

Jarque-Bera (JB):

481.278

Skew:

2.167

Prob(JB):

3.10e-105

Kurtosis:

8.380

Cond. No.

28.8

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

White Test Results:

LM Statistic: 4.5334495498564165  
LM P-Value: 0.10365110545098723  
F Statistic: 2.2813622389380717  
F P-Value: 0.10436521372831786